Amendments to the Specification:

Please amend the title of the application to read:

--MAGNETIC FIELD SENSOR HAVING MEMORY ELEMENT--

Please replace the paragraph on page 12, lines 2–3, with the following amended paragraph:

--The invention according to ~~Claim 1~~ an embodiment of the present invention is a magnetic field sensor comprising:--

Please replace the paragraph on page 14, lines 5–7, with the following amended paragraph:

--The invention according to ~~Claim 2~~ a further embodiment of the present invention is a magnetic field sensor according to ~~Claim 1~~ the previous embodiment characterized in that:--

Please replace the paragraph on page 15, lines 13–16, with the following amended paragraph:

--The invention according to ~~Claim '3~~ a further embodiment of the present invention is a magnetic field sensor according to ~~Claim 1 or 2~~ either of the previous embodiments, characterized in that at least one memory element among said memory elements is a capacitor.--

Please replace the paragraph on page 15, lines 21–23, with the following amended paragraph:

--The invention according to ~~Claim 4~~ a further embodiment of the present invention is a magnetic field sensor according to ~~Claim 1 or 2~~ either of the first two embodiments, characterized in that:--

Please replace the paragraph on page 17, lines 1–5, with the following amended paragraph:

--The invention according to ~~Claim 5~~ a further embodiment of the present invention is a magnetic field sensor according to ~~Claim 1 or 2~~ either of the first two embodiments, characterized in that at least one of the resistances for defining the gain of the amplifier is an element of which the manufacturing process is identical to that of the Hall element.--

Please replace the paragraph on page 18, lines 11–13, with the following amended paragraph:

--The invention according to ~~Claim 6~~ a further embodiment of the present invention is a magnetic field sensor characterized by comprising:--

Please replace the paragraph on page 19, lines 12–14, with the following amended paragraph:

--The invention according to ~~Claim 7~~ a further embodiment of the present invention is a magnetic field sensor characterized by comprising:--

Please replace the paragraph on page 22, lines 11–13, with the following amended paragraph:

--The invention according to ~~Claim 8~~ a further embodiment of the present invention is a magnetic field sensor according to ~~Claim 7~~ the previous embodiment, characterized by comprising:--

Please replace the paragraph on page 22, lines 23–25, with the following amended paragraph:

--The invention according to ~~Claim 8~~ the present embodiment can, additionally, latch the input voltage at the timing when the second phase ends and can output a constant digital value of 0 or 1.--

Please replace the paragraph on page 23, lines 1–3, with the following amended paragraph:

--The invention according to ~~Claim 9~~ a further embodiment of the present invention is a magnetic field sensor characterized by comprising:--

Please replace the paragraphs on page 24, lines 5–20, with the following amended paragraphs:

--The invention according to ~~Claim 9~~ the present embodiment can cancel the input offset voltage of the amplifier with a simple circuit and can latch the input voltage at the timing when the second phase ends so as to output a constant digital value of 0 or 1.

The invention according to ~~Claim 10~~ a further embodiment of the present invention is a magnetic field

sensor according to ~~Claim 8 or 9~~ the previous two embodiments, characterized in that predetermined voltage of said comparator varies depending on the output signal of said latch circuit.

The invention according to ~~Claim 10~~ the present embodiment can extract from a comparator, a signal which is stable against noise signals and of which the chattering is suppressed by providing the reference value set for the judgment by the comparator with a hysteresis. By giving this signal to a latch circuit, a stable signal which has a high judgment precision can be extracted from the latch circuit.--